

isolate that can be presented by multiple MHC class II molecules and a second subregion with a CTL activating epitope of the HIV isolate, wherein the contacting induces a systemic and rectal mucosal cytotoxic T lymphocyte response that can reduce the proliferation of a virus expressing the CTL activating epitope of the HIV isolate.

C 1 contd.
Please cancel claim 2 without prejudice.

C 2
6. (Twice amended) The method of claim 5, wherein the cytokine is contacted with the rectal mucosal surface.

C 3
9. (Amended) The method of claim 8, wherein the purified interferon- γ is contacted with the rectal mucosal surface of the subject.

C 4
11. (Amended) The method of claim 10, wherein the purified interferon- γ is contacted with the rectal mucosal surface of the subject.

Please cancel claims 15 and 16 without prejudice.

C 5
21. (Amend) The method of claim 1, wherein the chimeric peptide comprises:
EQMHEDIISLWDQSLKPCVKRIQRGPGRFTIGK (SEQ ID NO.: 1)
KQIINMWQEVGKAMYAPPISGQIRRIQRGPGRFTIGK (SEQ ID NO: 2)
RDNWRSELYKYKVVKIEPLGVAPTRIQRGPGRFTIGK (SEQ ID NO: 3)
AVAEGTDVIEVVQGAYRAIRHIPRRIRQGLERRIQRGPGRFTIGK (SEQ ID NO: 4),

DRVIEVVQGAYRAIRHIPRRIRQGLERRIQRGPGRFTIGK (SEQ ID NO: 5),

DRVIEVVQGAYRAIRRIQRGPGRFTIGK (SEQ ID NO: 6),

AQGAYRAIRHIPRRIRRIQRGPGRFTIGK (SEQ ID NO: 7),

EQMHEDIISLWDQSLKPCVKRIRIIGPGRAFYTTKN (SEQ ID NO: 8),

KQIINMWQEVGKAMYAPPISGQIRRIIGPGRAFYTTKN (SEQ ID NO: 9),

RDNWRSELYKYKVVKIEPLGVAPTRIHIGPGRAFYTTKN (SEQ ID NO: 10),
AVAEGTDVIEVVQGAYRAIRHIPRRIRQGLERRIHIGPGRAFYTTKN (SEQ
ID NO: 11),
DRVIEVVQGAYRAIRHIPRRIRQGLERRIHIGPGRAFYTTKN (SEQ ID NO:
12),
DRVIEVVQGAYRAIRRIHIGPGRAFYTTKN (SEQ ID NO: 13), or
AQGAYRAIRHIPRRIRRIHIGPGRAFYTTKN (SEQ ID NO: 14).

C5
22. (Amended) The method of claim 21, wherein the chimeric peptide is
HIV-1 CLUVAC PCLUS 3-18IIIB (SEQ. ID. No:2).

C6
25. (Amended) A method for inducing an antigen specific systemic and rectal
mucosal CTL response in a mammalian subject, comprising contacting a rectal mucosal tissue of
the subject with a composition comprising a chimeric peptide containing a first subregion with
multiple overlapping helper T cell activating epitopes of a HIV isolate that can be presented by
multiple MHC class II molecules, and a second subregion with a CTL activating epitope of the
HIV isolate, wherein said composition does not comprise an adjuvant, and wherein the
contacting induces the production of systemic and rectal mucosal cytotoxic T lymphocyte
response that can reduce the proliferation of a virus expressing the CTL activating epitope of the
HIV isolate.

C7
27. (Amended) The method of claim 26, wherein the cytokine is contacted
with the rectal mucosal surface of the subject.

C8
42. (Amended) The method of claim 25, wherein the chimeric peptide
comprises:

EQMHEDIISLWDQSLKPCVKRIQRGPGRAFVTIGK (SEQ ID NO.: 1)
KQIINMWQEVGKAMYAPPISGQIRRIQRGPGRAFVTIGK (SEQ ID NO: 2)
RDNWRSELYKYKVVKIEPLGVAPTRIQRGPGRAFVTIGK (SEQ ID NO: 3)

AVAEGTDVIEVVQGAYRAIRHIPRRIRQGLERRIQRGPGRAFVTIGK (SEQ ID NO: 4),

DRVIEVVQGAYRAIRHIPRRIRQGLERRIQRGPGRAFVTIGK (SEQ ID NO: 5),

DRVIEVVQGAYRAIRRIQRGPGRAFVTIGK (SEQ ID NO: 6),
AQGAYRAIRHIPRRIRRIQRGPGRAFVTIGK (SEQ ID NO: 7),
EQMHEDIISLWDQSLKPCVKRIRIHIPGPGRAFYTTKN (SEQ ID NO: 8),
KQIINMWQEVGKAMYAPPISGQIRRIHIPGPGRAFYTTKN (SEQ ID NO: 9),
RDNWRSELYKYKVVKIEPLGVAPTRIHIPGPGRAFYTTKN (SEQ ID NO: 10),
AVAEGTDVIEVVQGAYRAIRHIPRRIRQGLERRIHIPGPGRAFYTTKN (SEQ ID NO: 11),

DRVIEVVQGAYRAIRHIPRRIRQGLERRIHIPGPGRAFYTTKN (SEQ ID NO: 12),

DRVIEVVQGAYRAIRRIHIPGPGRAFYTTKN (SEQ ID NO: 13), or
AQGAYRAIRHIPRRIRRIHIPGPGRAFYTTKN (SEQ ID NO: 14).

43. (Amended) The method of claim 42, wherein the chimeric peptide is *HIV-1 CLUVAC PCLUS3-18IIIB* (SEQ ID No.:2).

46. (Amended) An immunogenic composition comprising a chimeric peptide containing a first subregion with multiple over lapping helper T cell activating epitopes of a HIV-1 isolate that can be presented by multiple MHC class II molecules and a second subregion with a CTL activating epitope of the HIV-1, formulated for intrarectal delivery to the rectum, colon, sigmoid colon, or distal colon that induces an antigen specific systemic and rectal mucosal cytotoxic T lymphocyte response that can reduce the proliferation of a virus expressing the CTL activating epitope of the HIV isolate.

49. (Amended) The immunogenic composition of claim 48, which is formulated as a rectal emulsion or gel preparation.

50. (Amended) The immunogenic composition of claim 48, wherein the chimeric peptide is admixed with a rectally-compatible homogeneous gel carrier.

51. (Amended) The immunogenic composition of claim 50, wherein the homogenous gel carrier is a polyoxyethylene gel.

52. (Amended) The immunogenic composition of claim 48, wherein the chimeric peptide is admixed with a rectally-compatible foam.

53. (Amended) The immunogenic composition of claim 48 wherein the chimeric peptide is formulated as a suppository.

55. (Amended) The immunogenic composition of claim 54, comprising at least two base materials.

56. (Amended) The immunogenic composition of claim 46, further comprising a stabilizing agent to minimize intrarectal degradation of the chimeric peptide.

57. (Amended) The immunogenic composition of claim 46, further comprising an absorption -promoting agent.

Please cancel 66 without prejudice.

Please add the following new claim:

70. (New) The method of claim 1, wherein the chimeric peptide further comprises a subregion having an epitope that can elicit a systemic neutralizing antibody response specific for the HIV-1 isolate, and wherein the contacting induces a systemic and rectal mucosal cytotoxic T lymphocyte response and a systemic neutralizing antibody response that can reduce the proliferation of a virus expressing the CTL activating and neutralizing epitopes of the HIV isolate.